Abstract of the Disclosure

In recording AV digital stream to a recording medium, the apparatus creates a time map including an address on the medium of AV data that is related to a playback time of the AV data for each encoding data unit, when a playback time information (PTS: Presentation Time Stamp) of the AV digital stream can be identified. The apparatus creates a time map including an address on the medium of AV data that is related to a packet arrival time (ATS: Arrival Time Stamp) of the AV data, when the playback time information (PTS) of the AV digital stream can not be identified.